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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/665,232	09/17/2003	Carlos Fernando Bella Cruz	END920000033US2 (13467Z)	6285
23389 7590 11/28/2007 SCULLY SCOTT MURPHY & PRESSER, PC 400 GARDEN CITY PLAZA SUITE 300 GARDEN CITY, NY 11530			EXAMINER ADE, OGER GARCIA	
			ART UNIT 3627	PAPER NUMBER
			MAIL DATE 11/28/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<p align="center"><b>Office Action Summary</b></p>	Application No. 10/665,232	Applicant(s) CRUZ ET AL.	
	Examiner Garcia Ade	Art Unit 3627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX(6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 25 May 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 8,9,11,12,14,15 and 17-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 8,9,11,12,14,15 and 17-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on May 25<sup>th</sup>, 2007 has been entered.
2. Applicants amended claims 8, 9, 11, 14, 17, and 20-22, and cancelled claims 10, 13, and 16.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 8, 11, and 14 are rejected under 35 U.S.C. 102(e) as being anticipated by Kalagnanam et al. [6,044,361].

The applied reference has a common assignee with the instant application.

Based upon the earlier effective U.S. filing date of the reference, it constitutes prior

art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Kalagnanam ('361) shows identifying orders from customers for finished unites; identifying finished units available to fill order; identifying defects in the units and defects that the customers are willing to accept (col. 2, lines 27-33, 58-68); identifying valid units that are available to orders (see abstract); and iteratively assigning and unassigning the orders until all orders are filled or there are no more assignment option, wherein if no available unit fulfills an order, a previously assigned unit which fulfills the order is unassigned from its previous match and reassigned to the present order (cols. 4-6, and read as the method uses iterative bipartite matching algorithms with repetitive multiple assignments and unassignments); creating an associated surface defect map indicating the locations of defects in said each finished unit and characteristics of said defects (see summary of the invention: a feasible solution is created by applying an Iterative Bipartite Matching on a given initial solution); using said defect maps to search for the largest area in each of the finished units that can be assigned to each order (figure 4 is a search tree illustrating the multi-assignment based back jumping algorithm implemented).

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 9, 12, 15, 20, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kalagnanam et al as applied to claims 8, 11, and 14 above, and further in view of Dye [4,459,663].

Kalagnanam shows all elements of the claims except identifying incomplete orders and due date and assigning units to the earliest orders. Dye shows these elements. It would have been obvious to one of ordinary skill in the art to further modify the method of Kalagnanam by identifying the date of orders and assigning items to the earliest orders in order to avoid missing a delivery date.

7. Claims 17-19, and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kalagnanam et al.

Kalagnanam shows that the finished units are metallic units. It does explicitly show identifying for each of a group of orders the largest area of each of the units that can be assigned to the order.

However, the examiner takes official notice that it is notoriously old and well known in the art to do so. It would have been obvious to one of ordinary skill in the art to modify the method of Kalagnanam by identifying the largest area of the metallic units that can be assigned to the orders in order to reduce waste.

8. Claims 8, 11, 14, and 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over "Production, Planning and Scheduling" (ACESITA).

ACESITA shows identifying finished units and orders for those units; identifying valid finished units that are available to be assigned to the orders; and units to orders (see e.g., pgs. 22, and 42). ACESITA further shows identifying defects in the units; identifying defects the customers are willing to accept; and assigning units on that basis. (It is noted that ACESITA recites that the system "matches the relevant attributes of the material to the specification of the order and determines the eligibility of the material for a given order". It continues to state that factors such as "quality", or relative presence of defects, are considered in assigning the material to orders). ACESITA does not explicitly show iteratively assigning and unassigning in a defined sequence until all order are fulfilled or no options are left, wherein if no units are available to fulfill an order, a previously assigned valid unit is found and unassigned from the order to which was assigned.

However, the examiner takes official notice that it is notoriously old and well known in the art to do so. It would have been obvious to one of ordinary skill in the arts to modify the method of ACESITA by iteratively assigning and unassigning units to orders wherein if no units are available to fulfill an order, a previously assigned valid unit is found and unassigned from the order to which was assigned

in order to ensure that all possible options are tested so that the most efficient option can be used.

As to claims 17-19, ACESITA shows that the finished units are metallic units and applying the units to the orders according to business rules. It does explicitly state that one of the business rules is to identify the largest portion of metallic units that can be assigned to an order.

However, the examiner takes official notice that it is notoriously old and well known in the art to do so. It would have been obvious to one of ordinary skill in the art to further modify the method of ACESITA by identifying the largest area of the metallic units that can be assigned to the orders in order to reduce waste.

### ***Response to Arguments***

9. Applicants' arguments filed on May 25<sup>th</sup>, 2007 have been fully considered but they are not persuasive.

Applicants argue that the ACESITA reference does not disclose or suggest the "defect map or the use of that defect map in the process of assigning finished units to orders in the allocation and reallocation of orders to precise regions of coils (materials) so that the minimum quality of an order is not violated while minimizing waste of material." The Examiner respectfully disagrees. ACESITA shows identifying finished units and orders for those units, identifying valid finished units that are available to be assigned to the orders, and units to orders (see e.g., pgs. 22, and 42). It is noted that ACESITA recites that the system "matches the relevant attributes of the material to the specification of the order and determines the

eligibility of the material for a given order". It continues to state that factors such as "quality", or relative presence of defects, are considered in assigning the material to orders.

Kalagnanam shows that the finished units are metallic units. The examiner takes official notice that it is notoriously old and well known in the art to identify the largest area of the metallic units that can be assigned to the orders in order to reduce waste. It would have been obvious to one of ordinary skill in the art to modify the method of Kalagnanam by identifying the largest area of the metallic units that can be assigned to the orders in order to reduce waste.

In Applicants' description of the present invention, it is noted that some of the elements argued are not claimed (e.g., reallocation). It is noted that the ACESITA document shows an inventory reallocation function.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Garcia Ade whose telephone number is 571.272.5586. The examiner can normally be reached on M-F 8:30AM - 5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Florian Zeender can be reached on 571.272.6790. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Garcia Ade  
Examiner  
Art Unit 3627

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*Vancl Frenel*  
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*11/26/07*